

In the Specification:

Please replace paragraph [016] - [019] with the following:

[016] As best seen in Fig. 3, 4 and 5, the engine 12 includes an internal combustion unit 12A and accessories 12B. The engine cooling radiator 40 is mounted above engine 12. Radiator 40 includes a heat exchange unit 42 between an upper tank 44 and a lower tank 46. A plurality (such as 6) of electric motor driven fans 48 are attached to the underside of the radiator 40 substantially between the engine 12 and the radiator 40. Fans 48 are preferably driven to blow air substantially upwardly and slightly forwardly (away from cab ~~43~~ 11) through the radiator 40. Electric motor driven water pump 50 circulates conventional coolant through the engine 12 and the radiator 40 and receives cooled coolant from tank 46 via hose 52. Hose 54 conducts heated coolant from the engine 12 to upper tank 44.

[017] The charge air cooling unit 60 is also located substantially above the engine 12 and to the rear of radiator 40. Cooling unit 60 includes a heat exchanger 62 between lower chamber 64 and upper chamber 66. Inlet pipe 63 communicates inlet air from turbo-compressor 33 to chamber 64. Outlet pipe 65 communicates cooled air from chamber 66 to engine intake manifold 37. A plurality (such as ~~6~~ six) of electric motor driven fans 70 are attached to the underside of the cooling unit 60 substantially between the engine 12 and the cooling unit 60. Fans 70 are preferably driven to blow air substantially upwardly and slightly forwardly (away from cab ~~43~~ 11) through the radiator cooling unit 60. It is advantageous to have the fans 48, 70 below rather than above the respective radiator 40 or 62 so that they operate in cooler, denser air.

[018] Referring now to Fig. 6, an engine driven generator 100 provides electrical power to an inverter 102 which provides 340 volt DC electrical power to a 340 volt bus 104. DC-DC converters 106 receive the 340 volt DC electrical power and provides 42 volt DC power to a 42 volt bus 108 and 14 volt power to a 14 volt bus 110. Each fan 48 and 70 includes a respective electric motor/controller 49, 71 which receives power from bus 108. Each motor/controller 49, 71 also receives control signals via a conventional CAN (computer area network) bus 112. Bus 112 receives control signals from a power management control unit 114. Water pump 50 includes an electric motor/controller 51 which is connected to bus 108 and bus 112. A temperature control unit 116 is connected to bus 112 and to an engine thermostat 118. The power manager 114 may be programmed to control the number of fans 48,

70 which are in operation and to control the speed of the fans 48, 70 and the speed of water pump 50 in response to sensed conditions and operating parameters.

[019] The result is a cooling system with a plurality of independent controllable electrically powered fans 48, 70 which are integrated with heat exchangers 42, 62, respectively, which are mounted horizontally above the engine 12. The fans 48 and 70 blow air in a vertical direction through large openings 22, 24 and 28 in the top of the hood 16. The fans 48, 70 and heat exchangers 42, 64 are mounted along the length of the hood 16. The radiator or engine cooler 40 is preferably mounted directly above and is solidly to the engine 12. An intercooler or EGR (exhaust gas recirculation) cooler (not shown) could be mounted adjacent to the turbocharger 33, reducing flow losses. Lower capacity AC and transmission coolers (not shown) can be mounted close to the cab (not shown) and the transmission 14.

On page 9, replace the Abstract with the following:

~~A cooling system is provided for a~~ A non-rail off-road vehicle, such as an agricultural tractor having an engine with a horizontally oriented rotation axis and a hood covering the engine, includes a cooling system. The cooling system includes an engine cooling radiator positioned above the engine and between the engine and the hood and a fan unit with electric motor-driven fans blowing air upwardly through the radiator. The fan unit is positioned above the engine and between the engine and the radiator. An engine charge air cooler is also positioned above the engine and between the engine and the hood, and a charge air cooler fan unit has electric motor-driven fans which blow air upwardly through the cooler. The hood has openings in its upper surface through which passes air blown by the radiator fan unit and the charge air cooler fan unit. This cooling system blows heated cooling air vertically upwardly, thus preventing the heated cooling air from being drawn back into the intakes of the cooling system and preventing heated air from being blown onto the exterior of the tractor cab.

Delete page 10, and the "Assignment" thereon.